(i) the first primer of the pair comprises (A) a first sequence that is complementary to the circular probe, (B) a second sequence that is complementary to the second primer of the pair, and (C) a signal generating moiety;

(ii) the second primer of the pair comprises (A) a sequence that is complementary to the first primer and (B) a moiety capable of quenching, masking or inhibiting the activity of the signal generating moiety when located adjacent to, or in close proximity to the signal generating moiety; and

(iii) when the first primer and the second primer are bound to one another, the signal is inhibited;

(c) adding a DNA polymerase; and

A1 CONT.

(d) amplifying the circular probe and separating the signal generating moiety and the quenching, masking or inhibitory moiety, thereby generating a signal, wherein detection thereof indicates the presence of the target nucleic acid in the sample.

41.(new) The method of claim 40, whereby the circular oligonucleotide probe is formed by ligating the 3' and 5' ends of a linear oligonucleotide probe, comprising 3' and 5' regions complementary to adjacent sequences in the target nucleic acid under conditions that allow hybridization between complementary sequences in the target nucleic acid and the linear oligonucleotide probe.

42.(new) The method of claim 40, wherein the signal generating moiety is a fluorescent agent.

43.(new) The method of claim 40, wherein the signal generating moiety is a chemiluminescent agent.

44.(new) The method of claim 40, wherein the signal generating moiety is an enzyme or enzyme substrate.

45.(new) The method of claim 40, wherein the circular probe is amplified using an amplification method selected from the group consisting of polymerase chain reaction, strand displacement amplification, transcription mediated amplification, RAM and primer extension.

46.(new) The method of claim 45, wherein the amplification method is RAM.

47.(new) A method for detecting a target nucleic acid in a sample comprising:

(a) contacting the nucleic acid with an oligonucleotide primer pair under conditions that allow hybridization between complementary sequences in the target nucleic acid and the oligonucleotide primer pair;

A1 CONT.

(b) adding the oligonucleotide primer pair comprising a first primer and a second primer; wherein

(i) the first primer of the pair comprises (A) a first sequence that is complementary to the target nucleic acid, (B) a second sequence that is complementary to the second primer of the pair, and (C) a signal generating moiety;

(ii) the second primer of the pair comprises (A) a sequence that is complementary to the first primer and (B) a moiety capable of quenching, masking or inhibiting the activity of the signal generating moiety when located adjacent to, or in close proximity to the signal generating moiety; and

(iii) when the first primer and the second primer are bound to one another, the signal is inhibited;

(c) adding a single stranded oligonucleotide primer comprising sequences complementary to the target nucleic acid;

(d) adding a DNA polymerase; and

(e) amplifying the target nucleic acid and separating the signal generating moiety and the quenching, masking or inhibitory moiety, thereby generating a signal, wherein detection thereof indicates the presence of the target nucleic acid in the sample.